

APPENDIX A-1

U.S. Government Spacecraft Record

(Includes spacecraft from cooperating countries launched by U.S. launch vehicles.)

| Calendar Year | Earth Orbit ^a | | Earth Escape ^a | |
|-----------------------------------|--------------------------|---------|---------------------------|----------------|
| | Success | Failure | Success | Failure |
| 1957 | 0 | 1 | 0 | 0 |
| 1958 | 5 | 8 | 0 | 4 |
| 1959 | 9 | 9 | 1 | 2 |
| 1960 | 16 | 12 | 1 | 2 |
| 1961 | 35 | 12 | 0 | 2 |
| 1962 | 55 | 12 | 4 | 1 |
| 1963 | 62 | 11 | 0 | 0 |
| 1964 | 69 | 8 | 4 | 0 |
| 1965 | 93 | 7 | 4 | 1 |
| 1966 | 94 | 12 | 7 | 1 ^b |
| 1967 | 78 | 4 | 10 | 0 |
| 1968 | 61 | 15 | 3 | 0 |
| 1969 | 58 | 1 | 8 | 1 |
| 1970 | 36 | 1 | 3 | 0 |
| 1971 | 45 | 2 | 8 | 1 |
| 1972 | 33 | 2 | 8 | 0 |
| 1973 | 23 | 2 | 3 | 0 |
| 1974 | 27 | 2 | 1 | 0 |
| 1975 | 30 | 4 | 4 | 0 |
| 1976 | 33 | 0 | 1 | 0 |
| 1977 | 27 | 2 | 2 | 0 |
| 1978 | 34 | 2 | 7 | 0 |
| 1979 | 18 | 0 | 0 | 0 |
| 1980 | 16 | 4 | 0 | 0 |
| 1981 | 20 | 1 | 0 | 0 |
| 1982 | 21 | 0 | 0 | 0 |
| 1983 | 31 | 0 | 0 | 0 |
| 1984 | 35 | 3 | 0 | 0 |
| 1985 | 37 | 1 | 0 | 0 |
| 1986 | 11 | 4 | 0 | 0 |
| 1987 | 9 | 1 | 0 | 0 |
| 1988 | 16 | 1 | 0 | 0 |
| 1989 | 24 | 0 | 2 | 0 |
| 1990 | 40 | 0 | 1 | 0 |
| 1991 | 32 ^c | 0 | 0 | 0 |
| 1992 | 26 ^c | 0 | 1 | 0 |
| 1993 | 28 ^c | 1 | 1 | 0 |
| 1994 | 31 ^c | 1 | 1 | 0 |
| 1995 | 24 ^{c, d} | 2 | 1 | 0 |
| 1996 | 30 | 1 | 3 | 0 |
| 1997 (through September 30, 1997) | 15 ^e | 0 | 0 | 0 |
| TOTAL | 1,387 | 149 | 89 | 15 |

- a. The criterion of success or failure used is attainment of Earth orbit or Earth escape rather than judgment of mission success. "Escape" flights include all that were intended to go to at least an altitude equal to lunar distance from Earth.
- b. This Earth-escape failure did attain Earth orbit and, therefore, is included in the Earth-orbit success totals.
- c. This excludes commercial satellites. It counts separately spacecraft launched by the same launch vehicle.
- d. This counts the five orbital debris radar calibration spheres that were launched from STS-63 as one set of spacecraft.
- e. This includes the SSTI-Lewis spacecraft that began spinning out of control shortly after it achieved Earth orbit.